

**SOUTHERN IONICS INCORPORATED**  
**MATERIAL SAFETY DATA SHEET**

MSDS. NO. 001  
Effective Date: March 27, 2000

**PRODUCT NAME:** SODIUM ALUMINATE – 45%

Transportation Emergencies, Call (800) 424-9300 (CHEMTREC)  
Health Emergencies, contact Your Local Poison Center

**I. PRODUCT INFORMATION**

**Product Name:** Sodium Aluminate – 45% **Formula:**  $\text{Na}_2\text{Al}_2\text{O}_4$   
**Chemical Name:** Sodium Aluminate Solution

<b>Typical Composition</b>	<b>%</b>
Sodium Hydroxide	4-7 CAS #1310-73-2
Sodium Aluminate	40-42 CAS #1302-42-7
Water	Balance CAS #7732-18-5

**Exposure Standard:** \*TLV 2.0 mg/m<sup>3</sup> Ceiling for Sodium Hydroxide  
\*\* TWA 2.0 mg/m<sup>3</sup> Ceiling for Sodium Hydroxide

\*TLV – Threshold Limit Value – ACGIH  
\*\*TWA – Time Weighted Average – OSHA 1910.1000

Hazard Ratings: Health = 2 Flammability = 0 Reactivity = 0  
0 = Least; 1 = Slight; 2 = Moderate; 3 = High; 4 = Extreme;

**II. SARA TITLE III HAZARD CATEGORIES**

<b>Acute:</b>	Yes	<b>Chronic:</b>	No
<b>Fire Hazard:</b>	No	<b>Reactive Hazard:</b>	Yes
<b>Sudden Release of Pressure:</b>	No		

**III. SARA NOTIFICATION**

This product contains toxic chemicals (as listed in this MSDS) subject to the reporting requirements of section 313 – Title III of the Superfund Amendments, and Reauthorization Act of 1986, and 40 CFR Part 372.

**IV. PERSONAL PROTECTION INFORMATION**

**Ventilation:** Local exhaust ventilation, adequate to maintain airborne concentrations below OSHA limits of 2 mg/m<sup>3</sup>.  
**Eye:** Plastic, protective goggles.  
**Skin:** Neoprene rubber or plasticized clothing and boots.

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**Respiratory:** Use NIOSH/MSHA approved respirator for particulates and caustic mists.

**Other:** Neutralization supplies (3% acetic acid preferably) and abundant running water should be close at hand in working and storage areas.

## V. HEALTH INFORMATION

### PHYSIOLOGICAL & HEALTH EFFECTS

#### Routes of Entry:

**Eyes:** May cause tissue damage and vision loss.

**Skin:** Strongly corrosive to tissue.

**Inhalation:** Severe respiratory tract irritant.

**Ingestion:** Corrosive to gastrointestinal tissue.

**Toxicity:** Acute oral toxicity LD50 for rabbits is 500 mg/kg for sodium hydroxide.

### EMERGENCY & FIRST AID PROCEDURES

**Eyes:** IMMEDIATELY flush with large quantities of water for at least 15 minutes and seek medical attention.

**Skin:** Flush contaminated area with plenty of water. Seek medical attention immediately.

**Inhalation:** Remove from exposure. Seek medical attention immediately.

**Ingestion:** DO NOT induce vomiting. Seek medical attention immediately.

### SYMPTOMS OF OVEREXPOSURE

**Acute:** Dusts and mists are irritating to mucous membranes of the respiratory tract, mouth, throat, esophagus and stomach. Irritating to eyes and skin. May cause corneal damage.

**Chronic:** The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant in varying degrees of irritation to the respiratory tract issues.

## VI. REACTIVITY DATA

**Stability:** Stable in normal use.

**Conditions To Avoid:** Mixture with strong acids produces considerable heat.

**Incompatibility:** With strong acids.

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**Hazardous Decomposition Products:** None

**Hazardous Polymerization:** Will not occur

### VII. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance and Odor:</b>	Clear, amber liquid with slight odor.	<b>Boiling Point:</b>	244°F
<b>Vapor Density (air = 1):</b>	N/A	<b>Melting Point:</b>	-27°F
<b>Vapor Pressure:</b>	None	<b>Solubility in Water:</b>	45%
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	1.55 (typical)	<b>Molecular Weight:</b>	--
<b>Other (i.e. wtg. per gallon)</b>	12.9 lbs/gal (typical)	<b>pH:</b>	14

### VIII. SPECIAL PRECAUTIONS

**Handling and Storage Precautions:** Use black iron, mild steel, cast iron or stainless steel for bulk storage. Copper, tin, zinc, aluminum, and their alloys must be avoided. Do not store below 45°F. Storage temperature of 70° to 100°F is recommended.

### IX. FIRE PROTECTION INFORMATION

<b>Flash Point:</b>	Not flammable.	<b>Flammable Limits:</b>	N/A
<b>Extinguishing Media:</b>	Water, dry chemical.		
<b>Special Firefighting Procedures:</b>	N/A		

### X. TRANSPORTATION REQUIREMENTS

<b>DOT Proper Shipping Name:</b>	Sodium Aluminate Solution
<b>DOT Classification:</b>	8
<b>UN/NA Identification Number:</b>	UN 1819
<b>Other Requirements:</b>	Corrosive Label
<b>Packing Group:</b>	II

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**XI. SPILL OR LEAK PROCEDURES**

**Environmental**

**Impact:** Releases to streams may kill aquatic life. Releases to land may react with soil and may penetrate great distances underground posing potential severe environmental impact.

**Precautions if**

**Spilled or Released:** Steps should be taken to contain spilled liquids and prevent discharges to streams or sewer systems.

**Neutralizing**

**Chemicals:** Dilute Acid.

**Waste Disposal**

**Methods:** According to Federal, State, and Local laws and regulations.

**SALES OFFICE**

For Product Information:  
TEI.: 662-494-3055  
FAX: 662-494-2828

Post Office Drawer 1217  
West Point, MS 39773

To Place An Order:  
TEI.: 800-953-3585  
FAX: 800-953-3588

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**IMPORTANT**

The information on this Material Safety Data Sheet is believed to be accurate but is not warranted to be so. Protective equipment, health effects, and other related safety measures are based on intended and anticipated product use. Recipients are advised to confirm in advance of need that the information is applicable and suitable to their circumstances.

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